

# Lead and the City of Yuma Drinking Water

## What is Lead?

Lead is a naturally occurring element found in small amounts in the earth's crust. While it has some beneficial uses, it can be toxic to humans and animals.

## Where is Lead Found?

Lead can be found in all parts of our environment – the air, the soil, the water, and even inside our homes. Much of our exposure comes from human activities including the use of fossil fuels, past use of leaded gasoline, some types of industrial facilities, and past use of lead-based paint in homes. Lead and lead compounds have been used in a wide variety of products found in and around our homes, including paint, ceramics, pipes and plumbing materials, solders, gasoline, batteries, ammunition, and cosmetics.

## Is There Lead in My Drinking Water?

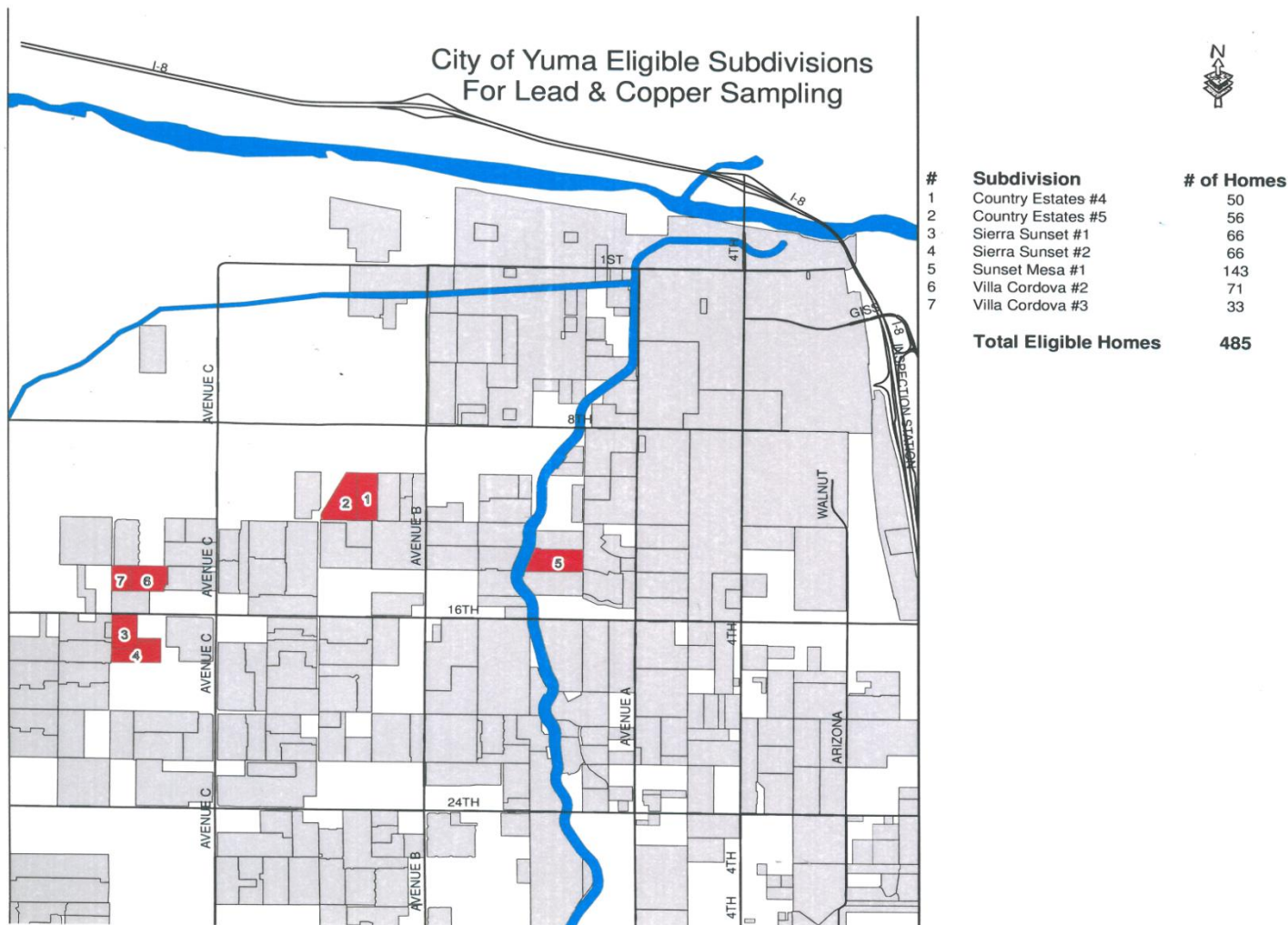
There are no appreciable levels of lead in the City of Yuma's drinking water source water. Although there is no lead within the source water, lead can enter drinking water through corrosion of plumbing materials within the distribution system, especially where the water has high acidity or low mineral content that corrodes pipes and fixtures. Corrosion is a dissolving or wearing away of metal caused by a chemical reaction between water and your plumbing. A number of factors are involved in the extent to which lead enters the water including the chemistry of the water, the amount of lead it comes into contact with, how long the water stays in the plumbing materials, and the presence of protective scales or coatings inside the plumbing materials.

To address corrosion of lead and copper into drinking water, EPA crafted and issued the [Lead and Copper Rule \(LCR\)](#) under the authority of the Safe Drinking Water Act. The LCR requires treatment to prevent lead and copper from contaminating drinking water.

The City of Yuma Lead and Copper Rule monitoring data is provided below.

<b>Results of Lead Sampling from Residential Water Taps</b>		
Action level – 90% of taps tested must not exceed 15 parts per billion (ppb)		
<b>Sampling Year</b>	<b>90% of taps were less than or equal to this value</b>	<b>Number of sites above the Action Level</b>
2015	0.70 ppb	Zero (0) out of 90 taps sampled
2012	0.62 ppb	Zero (0) out of 100 taps sampled
2009	0.75 ppb	Zero (0) out of 52 taps sampled
2006	0.75 ppb	Zero (0) out of 59 taps sampled
2003	1.3 ppb	Zero (0) out of 54 taps sampled

Given Yuma's drinking water chemistry, relative age of distribution materials, and historical consistency of the source water there is a low probability of occurrence of lead in the City of Yuma drinking water. Conversely, the data in the above table documents no Lead Action Level exceedances by the City of Yuma. In fact, Arizona in general has historically had low occurrences of lead in drinking water. The Arizona Department of Environmental Quality noted that statewide 6,440,181 individuals are subject to water regulated by EPA's Lead and Copper Rule, and 99.9% of that population received water below the Lead Action Level (2015). More data on Arizona's oversight of Public Water Systems can be found on ADEQ's website at <http://legacy.azdeq.gov/environ/water/dw/>



### How were sample locations chosen?

Not every home is a candidate for sampling under the EPA Lead and Copper Rule. Specific sample sites have to be chosen based upon the locations probability of containing lead and copper contamination. Sample site locations were ranked using EPA criteria and assessed Tier's, Tier 1 being the most likely to contain elevated lead and copper levels, and Tier 3 being the least likely. The sample sites above all meet the following criteria for Tier 1 sites.

A Tier 1 sample site is a single family structure with:

- Copper pipes with lead solder installed after 1982; or
- Interior lead piping; or
- Lead service lines

### Precautions You Can Take

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead)